

In the Claims

A listing of all claims, as currently pending, is provided below for the Examiner's convenience. In the present amendment, claims 65-68 have been added.

1. (Previously Presented) A connection module comprising: a housing including a front and two mounting flanges, a rear of the housing spaced from the front, a top spaced apart from a bottom, the top and the bottom positioned adjacent to the mounting flanges, and opposed spaced apart sides; a plurality of connection locations having exposed openings along the front; the bottom, the rear, and the opposed sides defining a cable notch region wherein the cable notch region defines an opening for receiving a first cable; and a cable clamp mounted on and extending from the rear in the cable notch region.
2. (Original) The connection module of claim 1, wherein the connection locations include a plurality of adapters configured and arranged for connection to an optical fiber connector, the adapters positioned at an angle having a component angle in the direction of the bottom of the housing.
3. (Original) The connection module of claim 2, further comprising clips which are snap fit to the front of the housing, the clips each holding at least one adapter.
4. (Original) The connection module of claim 1, wherein the connection locations include a plurality of adapters, and further comprising a first cable connected to the housing by the clamp, and interior cables optically connected to the adapters, the interior cables optically connected to a splice, the splice optically connected to the first cable.
5. (Original) The connection module of claim 1, wherein the connection locations include a plurality of adapters, and further comprising a first cable connected to the housing by the clamp, and interior cables optically connected to the adapters, the interior cables optically connected to an optical coupler, the optical coupler optically connected to the first cable.

6. (Original) The connection module of claim 5, wherein the optical coupler includes a splitter.
7. (Original) The connection module of claim 5, wherein the optical coupler includes a wavelength division multiplexer.
8. (Original) The connection module of claim 6, further comprising a splice between the first cable and the splitter.
9. (Original) The connection module of claim 7, further comprising a splice between the first cable and the wavelength division multiplexer.
10. (Previously Presented) A connection module comprising:
a housing having an interior defined by a front portion and a rear portion spaced apart from the front portion, the front portion being substantially parallel to the rear portion, the housing including mounting structure to removably mount the housing to a frame;
a plurality of connection locations having exposed openings disposed in the front portion, the connection locations being arranged in an array of vertical rows when the housing is mounted to the frame, the connection locations including a plurality of adapters configured and arranged for connection to an optical fiber connector; and
a splicing component disposed at least partially between the connection locations and the rear portion, the splicing component configured to optically connect a fiber optic cable that is connected to the module to interior cables that are optically connected between the splicing component and the connection locations;
the housing further including a lower portion having a direct opening into the interior of the housing, the opening sized to receive a fiber optic cable;

wherein the adapters are positioned at an angle having a first angle component angle that is in the direction of the rear portion to the front portion and a second component angle that is in the direction of the lower portion.

11. (Cancelled)

12. (Previously Presented) The connection module of claim 10, wherein the mounting structure includes a surface having mounting locations, the mounting locations adapted to removably mount the housing to a frame.

13. (Previously Presented) The connection module of claim 10, wherein the splicing component comprises a splice.

14. (Previously Presented) The connection module of claim 10, wherein the connection locations include a plurality of adapters, and further comprising at least one interior cable that is optically connected between the splicing component and at least one of the adapters, and further comprising a first cable that is physically connected to the housing and is optically connected to the splicing component.

15. (Previously Presented) The connection module of claim 10, wherein the splicing component includes at least one splice that is disposed entirely between the housing front and rear portions.

16. (Previously Presented) The connection module of claim 10, further comprising a cable attachment member coupled to the housing, the cable attachment member adapted to attach a fiber optic cable to the housing.

Claims 17-34 (Cancelled)

35. (Previously Presented) A connection module comprising:

a housing having a front portion and a rear portion spaced apart from the front portion, the front portion being substantially parallel to the rear portion, the housing further having a lower portion defining an opening, the opening sized to receive a fiber optic cable, the housing including mounting structure to removably mount the housing to a frame;

a plurality of connection locations having exposed openings disposed in the front portion, the connection locations being arranged in an array of vertical rows when the housing is mounted to the frame, the connection locations including a plurality of adapters configured and arranged for connection to an optical fiber connector, the adapters positioned at an angle having a first component angle that is in the direction of the rear portion to the front portion and a second component angle that is in the direction of the lower portion; and

a splicing component disposed at least partially between the connection locations and the rear portion, the splicing component configured to optically connect a fiber optic cable that is connected to the module to interior cables that are optically connected between the splicing component and the connection locations.

36. (Previously Presented) The connection module of claim 35, wherein the opening is sized to receive at least two fiber optic cables.

37. (Previously Presented) The connection module of claim 10, wherein the opening into the interior of the housing is a downwardly facing opening.

38. (Previously Presented) The connection module of claim 37, wherein the opening into the interior of the housing is a fully circumscribed opening.

39. (Previously Presented) The connection module of claim 10, wherein the opening is sized to receive at least two fiber optic cables.

Claims 40-48 (Cancelled)

49. (Previously Presented) The connection module of claim 1, wherein the opening defined in the cable notch region is a downwardly facing opening.

50. (Previously Presented) A connection module comprising:

a housing including a front and two mounting flanges, a rear of the housing spaced from the front, a top spaced apart from a bottom, the top and the bottom positioned adjacent to the mounting flanges, and opposed spaced apart sides; a plurality of connection locations having exposed openings along the front; the bottom, the rear, and the opposed sides defining a cable notch region wherein the cable notch region defines an opening for receiving a first cable; and a cable clamp extending from the rear in the cable notch region;

wherein the connection locations include a plurality of adapters configured and arranged for connection to an optical fiber connector, the adapters positioned at an angle having a component angle in the direction of the bottom of the housing.

51. (Previously Presented) The connection module of claim 50, further comprising clips which are snap fit to the front of the housing, the clips each holding at least one adapter.

52. (Previously Presented) A connection module comprising: a housing having a housing interior defined by a front spaced apart from a rear, a top spaced apart from a bottom, and opposed sides; a plurality of connection locations having exposed openings along the front; the bottom, the rear, and the opposed sides defining a cable notch region wherein the cable notch region defines an opening for receiving a first cable; and a cable clamp mounted outside of the housing interior in the cable notch region.

53. (Previously Presented) A connection module, comprising:

a) a housing having a front, a rear, a top and a bottom, the housing including a top mounting flange projecting upward relative to the top of the housing, the top mounting flange

including a fastener hole extending through the top mounting flange in a frontward-rearward direction relative to the housing, the housing defining an interior;

b) a telecommunications cable that enters the housing at the bottom, the telecommunications cable including a plurality of optical fibers, the optical fibers having ends located within the interior of the housing;

c) optical connectors positioned at the ends of the optical fibers; and

d) a plurality of adapters, the adapters being arranged in side-by-side adapter pairs, each of the adapters including:

i) a first end located within the interior of the housing, the first end being configured to connect to the optical connector at the end of one of the optical fibers; and

ii) a second end accessible from outside the housing, the second end being angled downward from the front of the housing.

54. (Previously Presented) The connection module of claim 53, wherein the telecommunications cable is attached to the housing by a cable clamp.

55. (Previously Presented) The connection module of claim 54, wherein the cable clamp is located outside of the housing.

56. (Previously Presented) The connection module of claim 54, wherein the cable clamp is located within a notched region formed in the bottom and the rear of the housing.

57. (Previously Presented) The connection module of claim 53, wherein the adapters are SC type adapters.

58. (Previously Presented) A connection module, comprising:

a) a housing having a front, a rear, a top and a bottom, the housing including a top mounting flange projecting upward relative to the top of the housing, the top mounting flange

including a fastener hole extending through the top mounting flange in a frontward-rearward direction relative to the housing, the housing defining an interior;

b) a telecommunications cable that enters the housing through a cable opening located at the bottom of the housing, the telecommunications cable including a plurality of optical fibers, the optical fibers having ends located within the interior of the housing;

c) optical connectors provided at the ends of the optical fibers;

d) the front of the housing defining a plurality of front openings, the front openings being arranged in side-by-side opening pairs; and

e) a plurality of adapters providing connection locations at the front of the housing, the adapters being mounted within the front openings defined at the front of the housing, the adapters including:

i) first ends located within the interior of the housing for receiving the optical connectors provided at the ends of the optical fibers; and

ii) second ends accessible from outside the housing for receiving optical connectors located outside of the housing;

f) wherein the adapters are angled such that the second ends of the adapters face downwardly.

59. (Previously Presented) The connection module of claim 58, wherein the connection module includes at least two vertical rows of adapters at the front of the housing.

60. (Previously Presented) The connection module of claim 58, wherein the connection module includes only two vertical rows of adapters at the front of the housing.

61. (Previously Presented) The connection module of claim 58, wherein the telecommunications cable is clamped to the housing.

62. (Previously Presented) The connection module of claim 58, wherein the housing includes a first mounting flange located at the top of the housing and a second mounting flange located at the bottom of the housing.

63. (Previously Presented) The connection module of claim 62, wherein the first mounting flange defines at least one fastener opening and the second mounting flange defines at least one fastener opening.

64. (Previously Presented) The connection module of claim 58, wherein the adapters are SC type adapters.

65. (New) A connection module, comprising:

- a) a housing having a front, a rear, a top and a bottom;
- b) a telecommunications cable that enters the housing through a cable opening located at the bottom of the housing, the telecommunications cable including a plurality of optical fibers, the optical fibers having ends located within an interior of the housing;
 - c) optical connectors provided at the ends of the optical fibers;
 - d) the front of the housing defining a plurality of front openings; and
 - e) a plurality of adapters providing connection locations at the front of the housing, the adapters being mounted within the front openings defined at the front of the housing, the adapters including:
 - i) first ends accessible from within the interior of the housing for receiving the optical connectors provided at the ends of the optical fibers; and
 - ii) second ends accessible from outside the housing for receiving optical connectors located outside of the housing;
 - f) wherein the adapters are angled such that the second ends of the adapters face downwardly, and
 - g) wherein the housing is configured such that when the housing is mounted to another structure, the front of the housing faces outwardly from the structure.

66. (New) The connection module of claim 65, wherein the housing includes a fastener hole extending in a generally frontward-rearward direction relative to the housing, the fastener hole being configured to receive a fastener to mount the housing to another structure.

67. (New) The connection of module of claim 66, wherein the fastener hole extends through a mounting flange.

68. (New) A telecommunications connection device, comprising:

a) a housing having a front and a rear, the housing defining an interior and a cable opening;

b) a telecommunications cable that enters the housing through the cable opening, the telecommunications cable including a plurality of optical fibers, the optical fibers having ends located within the interior of the housing, the telecommunications cable extending outwardly from the housing in a first direction;

c) optical connectors provided at the ends of the optical fibers;

d) the front of the housing defining a plurality of front openings; and

e) a plurality of adapters providing connection locations at the front of the housing, the adapters being mounted within the front openings defined at the front of the housing, the adapters including:

i) first ends accessible from within the interior of the housing for receiving the optical connectors provided at the ends of the optical fibers; and

ii) second ends accessible from outside the housing for receiving optical connectors located outside of the housing;

iii) the adapters being angled such that the second ends of the adapters face generally in the first direction;

f) the telecommunications connection device being an outside plant device.